What is claimed is:

1. A method for diagnosing a disease state associated with oxidative stress in a subject, the method including the steps of:

- measuring the level of non-selenium glutathione peroxidase protein in a biological fluid or tissue obtained from the subject over time to detect an increase in the level of non-selenium glutathione peroxidase protein in the subject; and/or

- measuring the level of non-selenium glutathione peroxidase protein in a biological fluid or tissue obtained from the subject and comparing the measured level of non-selenium glutathione peroxidase protein with a control level.

2. The method of claim 1, wherein the method includes the steps of:

- comparing the level of non-selenium glutathione peroxidase protein present in a first biological fluid sample to the level of non-selenium glutathione peroxidase protein present in a second biological fluid sample, wherein the first fluid is a fluid from a subject suspected of suffering from an increase in oxidative stress and the second fluid is a fluid from a subject that is not suffering from an increase in oxidative stress, wherein the first and second fluids are of the same fluid type, and wherein the non-selenium glutathione peroxidase protein is identified by an agent that specifically recognises the non-selenium glutathione peroxidase protein; and

- categorizing the first sample as likely to be indicative of the onset of the disease state in the subject when the level of non-selenium glutathione peroxidase protein is found to be the higher in the first sample than in the second sample.

3. The method of claim 2 wherein the subject is human.

4. The method of claim 3 wherein the biological fluid that is assayed is selected from the list consisting of serum, plasma, whole blood, cerebro spinal fluid, amniotic fluid, and synovial fluid.

5. The method of claim 1 wherein the tissue that is assayed is epithelial, connective or muscle tissue.

6. The method of claim 4 wherein the agent that specifically recognises the non-selenium glutathione peroxidase protein is an antibody specific for non-selenium glutathione peroxidase.

7. The method of claim 6 wherein the disease state associated with oxidative stress is a neurodegenerative disease.

8. The method of claim 6 wherein the disease state associated with oxidative stress is Parkinson's disease.

9. The method of claim 6 wherein the disease state associated with oxidative stress is Alzheimer's disease.

10. The method of claim 6 wherein the disease state associated with oxidative stress is Dementia.

11. A method for detecting oxidative stress in a subject, the method including the steps of:

- producing antibodies specific to at least one peptide fragment of non-selenium glutathione peroxidase protein, or derivative thereof,
- obtaining a putative non-selenium glutathione peroxidase protein containing biological sample from the subject,
- contacting the biological sample with the antibodies under conditions for formation of an antibody: non-selenium glutathione peroxidase protein complex, and

- assaying for the formation of the antibody: non-selenium glutathione peroxidase protein complex to detect the presence and/or levels of non-selenium glutathione peroxidase protein.

12. The method of claim 11 wherein the step of assaying for the formation of antibody: non-selenium glutathione peroxidase protein complex involves detecting the complex using a second revealing antibody.

13. The method of claim 11 comprising the steps of binding specific anti-peptide antibodies to a support; immunocapture of non-selenium glutathione peroxidase protein in a sample of biological material by the antibodies; and revealing of the immunocaptured non-selenium glutathione peroxidase protein by a second labelled anti-peptide antibody.

14. An antibody, or fragment thereof, that binds to an oligopeptide that includes the sequence of SEQ ID NO:1 or a fragment of SEQ ID NO:1, or the sequence of SEQ ID NO:2 or a fragment of SEQ ID NO:2.